



## SEQUENCE LISTING

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<120> Canine Vaccines Against Bordetella Bronchiseptica

<130> PC25496A

<140> 10/767809

<141> 2004-01-29

<150> 60/443,418

<151> 2003-01-29

<160> 3

<170> PatentIn version 3.3

<210> 1

<211> 602

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<213> Bordetella bronchiseptica

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Asn Pro Ala Ala Glu Leu Arg Phe Gln Asn Gly Ser Val Thr Ser Ser  
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Gly Gln Leu Phe Asp Glu Gly Val Arg Arg Phe Leu Gly Thr Val Thr  
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Val Lys Ala Gly Lys Leu Val Ala Asp His Ala Thr Leu Ala Asn Val  
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Ser Asp Thr Arg Asp Asp Asp Gly Ile Ala Leu Tyr Val Ala Gly Glu  
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Gln Ala Gln Ala Ser Ile Ala Asp Ser Thr Leu Gln Gly Ala Gly Gly  
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Glu Leu Thr Val Asp Gly Gly His Ile Thr Gly Gly Arg Ala Ala Gly  
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Gly Gly Ser Leu Ser Ala Pro His Gly Asn Val Ile Glu Thr Gly Gly  
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Asp Phe Gln Gln Pro Ala Glu Ala Gly Arg Phe Lys Val Leu Met Val  
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Asp Thr Leu Ala Gly Ser Gly Leu Phe Arg Met Asn Val Phe Ala Asp  
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Leu Gly Leu Ser Asp Lys Leu Val Val Met Arg Asp Ala Ser Gly Gln  
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His Arg Leu Trp Val Arg Asn Ser Gly Ser Glu Pro Ala Ser Ala Asn  
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Thr Met Leu Leu Val Gln Thr Pro Arg Gly Ser Ala Ala Thr Phe Thr  
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Asn Pro Ala Ala Glu Leu Arg Phe Gln Asn Gly Ser Val Thr Ser Ser  
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Gly Gln Leu Phe Asp Glu Gly Val Arg Arg Phe Leu Gly Thr Val Thr  
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Val Lys Ala Gly Lys Leu Val Ala Asp His Ala Thr Leu Ala Asn Val  
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Ser Asp Thr Arg Asp Asp Asp Gly Ile Ala Leu Tyr Val Ala Gly Glu  
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Gln Ala Gln Ala Ser Ile Ala Asp Ser Thr Leu Gln Gly Ala Gly Gly  
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Val Arg Val Glu Arg Gly Ala Asn Val Thr Val Gln Arg Ser Thr Ile  
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Val Asp Gly Gly Leu His Ile Gly Thr Leu Gln Pro Leu Gln Pro Glu  
 145 150 155 160

Asp Leu Pro Pro Ser Arg Val Val Leu Gly Asp Thr Ser Val Thr Ala  
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Val Pro Ala Ser Gly Ala Pro Ala Ala Val Ser Val Phe Gly Ala Asn  
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Glu Leu Thr Val Asp Gly Gly His Ile Thr Gly Gly Arg Ala Ala Gly  
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Val Ala Ala Met Asp Gly Ala Ile Val His Leu Gln Arg Ala Thr Ile  
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Arg Arg Gly Asp Ala Pro Ala Gly Gly Ala Val Pro Gly Gly Ala Val  
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Pro Gly Gly Phe Gly Pro Leu Leu Asp Gly Trp Tyr Gly Val Asp Val  
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Gln Ala Gly Ala Arg Ala Gln Gly Arg Ala Leu Leu Tyr Arg Val Leu  
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Asp Asn Ser Asn Val Gly Ala Leu Arg Leu Ala Ser Asp Gly Ser Val  
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Asp Phe Gln Gln Pro Ala Glu Ala Gly Arg Phe Lys Cys Leu Met Val  
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Asp Thr Leu Ala Gly Ser Gly Leu Phe Arg Met Asn Val Ala Phe Ala  
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Asp Leu Gly Leu Ser Asp Lys Leu Val Val Met Arg Asp Ala Ser Gly  
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Gln His Arg Leu Leu Val Arg Asn Ser Gly Ser Glu Pro Ala Ser Gly  
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Asn Thr Met Leu Leu Val Gln Thr Pro Arg Gly Ser Ala Ala Thr Phe  
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Thr Leu Ala Asn Lys Asp Gly Lys Val Asp Ile Gly Thr Tyr Arg Tyr  
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